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                                                   Appl. No. 09/888,438

Amendments to the Claims

1. (Canceled)

2. (Currently Amended) The method of claim ~~1~~ 3, wherein said allocating

further comprises loading, into a memory cell accessible by ~~that GPU~~ the graphics

processing unit, the three-dimensional computer graphics data corresponding to ~~a~~ the

portion of the scene that lies within the rectangular subvolume to which ~~that GPU~~ the

graphics processing unit has been assigned.

3. (Currently Amended) ~~The~~ A method ~~of claim 1, further comprising, before~~

~~step (2),~~ for presenting three-dimensional computer graphics images of a scene using

multiple graphics processing units, comprising the steps of:

        (1)   allocating, to a graphics processing unit of the multiple graphics

processing units, three-dimensional computer graphics data such that said allocated

three-dimensional computer graphics data corresponds to a portion of the scene that lies

within a rectangular subvolume to which the graphics processing unit has been assigned;

        ~~(5)~~ (2) determining a viewing ~~position; and~~ position, wherein said

determined viewing position is independent of an angle formed between a first direction

from said determined viewing position to the scene and a second direction that coincides

with a boundary of the rectangular subvolume;

        ~~(6)~~ (3) communicating said determined viewing position to ~~each GPU.~~

the graphics processing unit;

(4)	rendering, by the graphics processing unit, said allocated three-dimensional computer graphics data;

(5)	combining said rendered three-dimensional computer graphics data with three-dimensional computer graphics data rendered by another graphics processing unit of the multiple graphics processing units, thereby producing a three-dimensional computer graphics image; and

(6)	presenting, for viewing, said combined three-dimensional computer graphics image.

4. (Currently Amended)	The method of claim 3, wherein said combining further comprises the step of:

(7)	ordering said rendered three-dimensional computer graphics data based on locations between said determined viewing position and ~~each~~ rectangular ~~subvolume.~~ subvolumes to which the multiple graphics processing units have been assigned.

5. (Currently Amended)	The method of claim ~~1~~ 3, wherein said combining further comprises the step of:

(8)	blending said rendered three-dimensional computer graphics data.

6. (Currently Amended)	The method of claim ~~1~~ 3, wherein said combining is performed by at least one image combiner.

7. (Original) The method of claim 6, wherein each of the at least one image combiner has an associated frame buffer for storing said combined three-dimensional computer graphics image.

8. (Original) The method of claim 6, wherein an output of the at least one image combiner is an input for another image combiner.

9. (Currently Amended) A system for presenting three-dimensional computer graphics images using multiple graphics processing units, comprising:

memory for storing three-dimensional computer graphics data;

~~at least one GPU~~ a graphics processing unit of the multiple graphics processing units for rendering a portion of the three-dimensional computer graphics data that corresponds to a rectangular subvolume to which said ~~at least one GPU~~ graphics processing unit is assigned;

a communications means for communicating a viewing position to ~~each~~ ~~of~~ said ~~at least one GPU~~ graphics processing unit; and

at least one image combiner for combining the three-dimensional computer graphics data rendered by said ~~at least one GPU~~ graphics processing unit, to produce a three-dimensional computer graphics image;

wherein said ~~portion of the three-dimensional computer graphics data~~ ~~includes at least one of first data for a first graphics primitive having first vertices that lie~~ ~~within the rectangular volume to which said at least one GPU is assigned and second~~ ~~data for a second graphics primitive having a vertex that lies outside of the rectangular~~ ~~subvolume to which said at least one GPU is assigned.~~ viewing position is independent

of an angle formed between a first direction from said viewing position to a scene

represented by the three-dimensional computer graphics image and a second direction

that coincides with a boundary of said rectangular subvolume.

        10. (Currently Amended) The system of claim 9, wherein said memory is

memory cells such that each said memory cell is accessible by only one of ~~said at least~~

~~one GPU~~ the multiple graphics processing units.

        11. (Currently Amended) The system of claim 9, wherein at least one of said at

least one image combiner is configured to receive ~~the~~ an output of at least one other of

said at least one image combiner.